

ABSTRACT
LATENT INKJET FORMULATION AND METHOD

- A latent or "invisible ink" security marking formulation is provided using a
- 5 phosphor with distinct emissions characteristics including visible emission due to excitation at a particular invisible wavelength. An insoluble inorganic phosphor with this or a similarly distinct emission characteristic is milled to a small particle size, preferably less than one micron particle diameter, and is combined with a carrier at very low pigment concentration, for example one percent by weight of
- 10 the ink formulation. Preferably the pigment is cropped to resin particles in a binder. This ink formulation is diluted by a volatile solvent and applied using a conventional inkjet printer of the type used to mark codes on packages and labels. To test for security purposes the printing is irradiated and a response according to the predetermined characteristic is noted (or not noted) to detect
- 15 security information. The marking is not immediately apparent and without knowledge of the specific phosphor used is difficult for a counterfeiter to reproduce.

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